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Omnipresent Chemicals: TSCA Preemption in the Wake of PFAS Contamination

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NOTE

Omnipresent Chemicals: TSCA Preemption in the Wake of PFAS Contamination

FREDERICK A. McDONALD*

Over the past few decades, studies addressing the harms of PFAS have gradually progressed, and now scientists believe increased exposure could lead to reproductive defects and a higher risk of cancer. Given the amplified concern surrounding these pervasive chemicals, states are proactively filing lawsuits on behalf of their citizens and enacting legislation to combat this nation-wide contamination epidemic. However, given the 2016 Amendment to the Toxic Substances Control Act of 1976, states looking to regulate the manufacturing or looking to ratify a state-wide ban on the manufacturing of such chemicals may face preemption under actions taken by the United States Environmental Protection Agency.

This Note focuses on the possible loss of state autonomy with regards to PFAS regulation. It addresses the issues states might face given the restrictive nature of the newly enacted preemption provisions of the Toxic Substances Control Act, while also examining the Act's possible deficiencies. Ultimately, recognizing a need for creative solutions outside the scope of manufacturing regulations may provide the best solutions for states to combat these ubiquitous chemicals.

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TABLE OF CONTENTS

I.	<i>Introduction</i>	141
II.	<i>Overview of PFAS through a historical examination of PFOA and PFOS, the most commonly recognized PFAS</i> .	143
A.	<i>Scientific Properties and Historical Perspective</i>	143
B.	<i>States continued concern over PFOA and PFOS Chemicals, and why regulation of additional PFAS is desired</i>	146
III.	<i>Overview of the Toxic Substances Control Act</i>	149
A.	<i>The Toxic Substances and Control Act of 1976</i>	149
B.	<i>The Toxic Substances and Control Act Amendment: Frank R. Lautenberg Chemical Safety for the 21st Century Act</i>	151
C.	<i>Constitutionality of LSCA</i>	156
IV.	<i>Federal Regulations of PFAS under TSCA</i>	160
A.	<i>The EPA's Regulatory Scheme of PFAS</i>	160
B.	<i>Are states preempted from enacting regulations?</i>	163
V.	<i>Comparison of state law and whether there should be a concern of facing TSCA's preemption provisions in the future</i>	166
A.	<i>California</i>	166
B.	<i>West Virginia</i>	168
VI.	<i>Corrective Solutions to Impending Preemption</i>	170
A.	<i>TSCA Exceptions and Waivers</i>	170
B.	<i>Regulation through Water Provisions</i>	172
VII.	<i>Conclusion</i>	174

I. INTRODUCTION

We stand now where two roads diverge. But unlike the roads in Robert Frost’s familiar poem, they are not equally fair. The road we have long been traveling is deceptively easy, a smooth superhighway on which we progress with great speed, but at its end lies disaster. The other fork of the road — the one “less traveled by” — offers our last, our only chance to reach a destination that assures the preservation of the earth.¹

These words, immortalized in the mid-twentieth century to address the indiscriminate use of pesticides, ideologically correlate to another class of harmful chemicals known as PFAS.² While concern was surrounding pesticides in the 1900s, PFAS began lurking in the shadows of large corporations, slowly proliferating into what eventually would be referred to as a nation-wide contamination epidemic. Though still shrouded in some mystery, PFAS are no longer hidden from society and have been brought to the fore as a result of scientific evidence linking increased chemical exposure to negative health consequences. As such, states are making strides to regulate these pervasive chemicals, but face a potential obstacle: federal preemption.

While preemption has various meanings, the modern legal usage refers to the federal government’s constitutional right to invalidate state law.³ Rooted in the Supremacy Clause, Article VI of the United States Constitution, preemption establishes that federal law is the “supreme Law of the Land”⁴—meaning, states

1. RACHEL CARSON, *SILENT SPRING* 277 (Houghton Mifflin Company, 1987) (1962).

2. Perfluoroalkyl and polyfluoroalkyl substances (collectively known as PFAS) are a family of synthetic compounds not found naturally in the environment. The commonality among these human-made compounds is the multiple fluorine atoms. See Scott Fulton et al., *The Use of PFAS at Industrial and Military Facilities: Technical, Regulatory, and Legal Issues*, 49 ENVTL. L. REV. 10109, 10111 (2019); see also AGENCY FOR TOXIC SUBSTANCE & DISEASE REGISTRY, AN OVERVIEW OF PERFLUOROALKYL AND POLYFLUOROALKYL SUBSTANCES AND INTERIM GUIDANCE FOR CLINICIANS RESPONDING TO PATIENT EXPOSURE CONCERNS (2018).

3. Richard A. Epstein & Michael S. Greve, *Introduction: Preemption in Context*, in *FEDERAL PREEMPTION: STATES’ POWERS, NATIONAL INTERESTS* 1, 1 (Richard A. Epstein & Michael S. Greve eds., 2007).

4. U.S. CONST. art. VI, cl. 2 (“This Constitution, and the Laws of the United States which shall be made in Pursuance thereof; and all Treaties made, or which

are bound by federal decrees. A common concern surrounding such notion has been states' loss of autonomy.⁵ In other words, once the federal government decides to regulate a certain area of law, states are typically not permitted to impose contradictory directives. Because of this sovereignty issue, "[t]here is a presumption against preemption in areas historically regulated by the states."⁶

While some areas of law have been traditionally regulated by the states, such as the environmental field,⁷ not all federal statutes supersede state law, and thus, federal and state standards might have the capability to operate in the same province.⁸ In the context of environmental statutes, Congress has executed many uniform regulations since the 1970s, but has left some flexibility to the states to implement additional regulations in ways that reflect local particularities.⁹ For example, the Toxic Substances Control Act of 1976 ("TSCA"), for many years, allowed states to enact various laws regarding harmful chemicals as a result of the United States Environmental Protection Agency ("EPA") facing difficulties regulating under TSCA's principal provision.¹⁰

shall be made, under the Authority of the United States, shall be the supreme Law of the Land; and the Judges in every State shall be bound thereby, any Thing in the Constitution or Laws of any State to the Contrary notwithstanding."). The Supreme Court has addressed and provided various interpretations on the Supremacy Clause throughout history. *See* N.Y. Cent. R.R. Co. v. Winfield, 244 U.S. 147, 169 (1917) (Brandeis, J., dissenting) (illustrating an early example of field preemption); *see also* Edgar v. MITE Corp., 457 U.S. 624, 630–34 (1982) (discussing how courts must balance conflicts between federal and state statutes when Congress has not explicitly placed prohibitions on states); *Gibbons v. Ogden*, 22 U.S. 1 (1824).

5. *See, e.g.*, *Am. Ins. Ass'n v. Garamendi*, 539 U.S. 396, 420 (2003) ("[I]t would be reasonable to consider the strength of the state interest, judged by standards of traditional practice, when deciding how serious a conflict must be shown before declaring the state law preempted.").

6. Paul S. Weiland, *Federal and State Preemption of Environmental Law: A Critical Analysis*, 24 HARV. ENVTL. L. REV. 237, 252 (2000).

7. *See generally* Sandra Zellmer, *Federal Pre-Emption and Displacement of Environmental Statutes and Common Law Claims*, in *DECISION MAKING IN ENVIRONMENTAL LAW* 96, 102 (LeRoy C. Paddock et al. eds., 2016).

8. *Id.* at 98.

9. *See* Env'tl. Def. Fund, *Comparing the 1976 Toxic Substances Control Act to the Frank R. Lautenberg Chemical Safety for the 21st Century Act*, ENVTL. DEF. FUND 8 (June 22, 2016), <http://blogs.edf.org/health/files/2016/06/Side-by-side-oldTSCA-newTSCA-FINAL.pdf> [<https://perma.cc/R2AH-Z4VM>].

10. Mark N. Duvall et al., *What's New About the Revised TSCA – Toxic Substance Control Act*, NAT'L L. REV. (June 2, 2016), <https://www.natlawreview.com/article/what-s-new-about-revised-tsca-toxic->

However, under the 2016 Amendment to TSCA, states now face strict preemption provisions which could drastically affect efforts to regulate certain chemicals under existing and future state law.¹¹

This Note argues that states might be partially preempted from regulating PFAS under TSCA, and therefore, should focus on implementing corrective solutions, outside the scope of manufacturing regulations, in order to overcome preemption. A special emphasis will be placed on state and federal regulations surrounding perfluorooctanoic acid (“PFOA”) and perfluorooctanesulfonic acid (“PFOS”), the most commonly known PFAS.¹² Part II reviews the historical background and scientific properties of PFAS, examining specifically PFOA and PFOS, and will address why these chemicals are of concern to states. Part III (1) provides a general overview of TSCA prior to the 2016 Amendment, (2) an overview of the new preemption provisions after its Amendment, and (3) an examination of whether the amended preemption provisions could result in a revival of the nondelegation doctrine. Part IV examines the EPA’s efforts to combat PFAS and whether the states might be in a period of preemption. Part V compares existing state measures regarding PFAS. Part VI examines (1) possible methods to avoid preemption, (2) alternatives to TSCA’s exceptions provision, and (3) other means to regulate PFAS while still complying with TSCA.

II. OVERVIEW OF PFAS THROUGH A HISTORICAL EXAMINATION OF PFOA AND PFOS, THE MOST COMMONLY RECOGNIZED PFAS

A. Scientific Properties and Historical Perspective

PFAS incorporate a large quantity of different chemicals used for industrial purposes. From a technical standpoint, such group of chemicals have been described as “a diverse class . . . characterised

substances-control-act [https://perma.cc/93KP-LZDF] (noting that “EPA has regarded TSCA’s principal control provision. . . as unworkable”).

11. See Kalyn Behnke, *Toxic Preemption: Why the Lautenberg Chemical Safety Act’s Erosion of State Authority Contaminates Environmental Law*, 57 JURIMETRICS J. 459, 460 (2017).

12. *PFAS Contamination of Water*, STATE OF RHODE ISLAND DEP’T OF HEALTH, <http://www.health.ri.gov/water/about/pfas/> [https://perma.cc/DK49-L7ZW].

by a hydrophobic alkylated chain saturated with fluorine atoms, usually attached to a hydrophilic head.”¹³ More simply, the structure of PFAS, which has lipid properties and water-resistant properties, makes these substances ideal for commercial uses.¹⁴ Of the thousands of PFAS in existence, PFOA and PFOS are the two most well-known types, which materialized back in the mid-twentieth century.¹⁵

PFOA is a synthetic compound with a chain length of eight carbons and hence, is often referred to as “C8.”¹⁶ The chemical “is used in the form of salts in the production of fluoropolymers, which have special properties in manufacturing and industrial applications, such as fire resistance, and oil, stain, grease, and water repellence.”¹⁷ PFOA is most commonly associated with Teflon,¹⁸ another name for the human-made chemical PTFE.¹⁹ Known for its stability, Teflon has most commonly been used in pans and other cookware because of its non-stick coating capabilities.²⁰ Teflon does not contain PFOA, but rather, PFOA is used to make Teflon and is a byproduct of Teflon production.²¹

PFOS is fairly similar to PFOA in that both chemicals contain eight carbons.²² The chemical is produced synthetically from

13. M. Clara et al., *Emissions of Perfluorinated Alkylated Substances (PFAS) from Point Sources—Identification of Relevant Branches*, 58 WATER SCI. & TECH. 59, 59 (2008).

14. *Id.*

15. See INTERSTATE TECH. REGULATORY COUNCIL, HISTORY AND USE OF PER- AND POLYFLUOROALKYL SUBSTANCES (PFAS) 1 (Nov. 2017), https://pfas-1.itrcweb.org/wp-content/uploads/2017/11/pfas_fact_sheet_history_and_use_11_13_17.pdf [<https://perma.cc/Q5F9-U7XE>]. PFOA and PFOS are just two of roughly 3,000 chemicals part of the PFAS family. *Id.*

16. NICHOLAS P. CHEREMISINOFF, PERFLUORINATED CHEMICALS: CONTAMINANTS OF CONCERN 49–50 (2017).

17. *Id.* at 50. Some of the common industrial sectors that use PFOA include aerospace, automotive, building/construction, chemical processing, electronics, semiconductors, and textile industries. *Id.*

18. CALLIE LYONS, STAIN-RESISTANT, NONSTICK, WATERPROOF, AND LETHAL: THE HIDDEN DANGERS OF C8 2 (2007).

19. *Teflon and Perfluorooctanoic Acid (PFOA)*, AM. CANCER SOC’Y (Jan. 5, 2016), <https://www.cancer.org/cancer/cancer-causes/teflon-and-perfluorooctanoic-acid-pfoa.html> [<https://perma.cc/C9T2-JZ4T>].

20. *Id.*; see also LYONS, *supra* note 18, at 1 (Teflon is used in household cleaning products and beauty items).

21. AM. CANCER SOC’Y, *supra* note 19.

22. See CHEREMISINOFF, *supra* note 16, at 44.

perfluorooctane sulfonyl fluoride (“PFOSF”), which is used for production of C8 compounds.²³ PFOS substances have been manufactured for roughly five decades, and their unique properties are ideal for manufactured products such as firefighting foams²⁴ and surface resistance or repellence to oils, water, and grease.²⁵

Factors contributing to PFAS contamination began as early as 1938 when Dr. Roy J. Plunkett, a research chemist, accidentally stumbled onto what is often referred to as “the miracle of Teflon.”²⁶ The discovery was made during the early stages of Dr. Plunkett’s work with DuPont, an American conglomerate responsible for the development of numerous polymers throughout the twentieth century.²⁷ For years, and in order to produce Teflon, DuPont purchased PFOA from 3M, which had been the main corporation manufacturing the chemical since the 1940s.²⁸

Around the same time that PFOA was making its way into the manufacturing process of various Teflon related products, PFOS became a key ingredient in stain repellants, such as Scotchgard.²⁹ Similar to Dr. Plunkett’s accidental discovery, Patsy Sherman, a chemist for 3M, developed Scotchgard while trying to create a

23. *Id.*

24. Stephen H. Korzeniowski et al., *Fluorosurfactants in Firefighting Foams: Past and Present*, in PERFLUOROALKYL SUBSTANCES IN THE ENVIRONMENT: THEORY, PRACTICE, AND INNOVATION 3, 13 (David M. Kempisty et al. eds., 2019) (noting that fluorosurfactants [another name for PFAS] were used as firefighting foam agents).

25. Kavitha Dasu et al., *Per- and Polyfluoroalkyl Substance Analysis to Support Site Characterization, Exposure, and Risk Management*, in PERFLUOROALKYL SUBSTANCES IN THE ENVIRONMENT: THEORY, PRACTICE, INNOVATION, *supra* note 24, at 40.

26. LYONS, *supra* note 18, at 1.

27. Roy J. Plunkett, *Historical Biographies*, SCI. HISTORY INST. (Dec. 14, 2017), <https://www.sciencehistory.org/historical-profile/roy-j-plunkett> [<https://perma.cc/ZYF8-9AMX>].

28. Sharon Lerner, *3M Knew About the Dangers of PFOA and PFOS Decades Ago, Internal Documents Show*, THE INTERCEPT (July 31, 2018, 12:33 PM), <https://theintercept.com/2018/07/31/3m-pfas-minnesota-pfoa-pfos/> [<https://perma.cc/HR5C-JTPZ>].

29. See Jonathon W. Martin et al., *PFOS and PreFOS? Are Perfluorooctane Sulfonate Precursors (PreFOS) Important Determinants of Human and Environmental Perfluorooctane Sulfonate (PFOS) Exposure?*, 12 J. ENVTL. MONITORING 1979, 1982 (2010).

rubber that would not deteriorate from exposures to jet fuel.³⁰ Sherman's discovery led to the first manufactured Scotchgard product, which contained PFOS.³¹

**B. States continued concern over PFOA and PFOS
Chemicals, and why regulation of additional PFAS
is desired**

Studies have shown that while DuPont and 3M continued to reap the benefits of their products that contained or used various PFAS, both companies began to accumulate information on the hazardous effects surrounding PFOA and PFOS.³² Discovery of dangerous consequences from exposure to these chemicals began as early as the 1960s, finding that animals experienced adverse effects to PFOA and PFOS.³³ By the 1970s, such chemicals were found to be present in the blood of 3M and DuPont workers.³⁴ The most alarming realization, given the unknown consequences of human exposure at the time, was the presence of these chemicals in the blood of nearly every worker in facilities manufacturing PFAS.³⁵ As the years progressed, studies from these corporations showed that not only were company workers plagued with exposure to these chemicals, but animals, not tested in labs, had traces of the compounds in their blood as well.³⁶ It became clear that PFAS were infecting surrounding environments (e.g., water and air) and was not contained solely to the factories producing the chemicals.³⁷

30. Susan Borowski, *Scientific Breakthroughs that Were Accidents*, AM. ASS'N FOR THE ADVANCEMENT OF SCI., 3P2Y<https://www.aaas.org/scientific-breakthroughs-were-accidents> [<https://perma.cc/9CVW-3P2Y>].

31. *Id.*

32. *Poisoned Legacy: From Lab Accident to Global Pollutant*, ENVTL. WORKING GRP. (May 1, 2015), <https://www.ewg.org/research/poisoned-legacy/lab-accident-global-pollutant> [<https://perma.cc/P2DN-NBTL>].

33. *Id.*; see also LYONS, *supra* note 18, at 4 (studies have shown that animals exposed to PFOA developed a variety of cancers, including liver, pancreas, breast, and testicular).

34. ENVTL. WORKING GROUP, *supra* note 32; see generally THE DEVIL WE KNOW (Netflix 2018) (recounting how PFAS infected a West Virginia community and individuals working in 3M and DuPont factories).

35. ENVTL. WORKING GROUP, *supra* note 32.

36. *Id.*

37. *Id.*

While some PFAS are no longer manufactured in the United States today, such as PFOA and PFOS, states still have an increasing concern over the health effects and environmental impacts caused from years of exposure.³⁸ PFAS are ubiquitous in the environment and human body, do not break down easily, and can accumulate over time.³⁹ Specifically, these substances are found in the air, soil, and water.⁴⁰ While the chemical break down is quicker in the air, PFAS do not break down at all once it enters the water and soil.⁴¹

Individuals face exposure to PFAS through the air breathed and sometimes indoor contact from dust and household products.⁴² The most common form of exposure comes from eating food and drinking water which contain these chemicals.⁴³ While scientific studies continue, it is believed that PFAS may “affect growth, learning, and behavior of infants and older children, lower a woman’s chance of getting pregnant, interfere with the body’s natural hormones, increase cholesterol levels, affect the immune system, [and] increase the risk of cancer.”⁴⁴ Interestingly enough, individuals throughout the world face these potential health risks, as studies show that nearly everyone has traces of the chemicals in their blood.⁴⁵

Because of the continued concern over PFAS, states are taking two forms of action. The first involves numerous states filing lawsuits against manufacturers of PFAS, such as DuPont and

38. See *Basic Information on PFAS*, EPA, <https://www.epa.gov/pfas/basic-information-pfas> [<https://perma.cc/W7NN-NN3L>].

39. *Id.*

40. AGENCY FOR TOXIC SUBSTANCES & DISEASE REGISTRY, PER- AND POLYFLUOROALKYL SUBSTANCES (PFAS): FREQUENTLY ASKED QUESTIONS (2018), https://www.health.ny.gov/environmental/investigations/drinkingwaterresponse/docs/atsdr_pfas_factsheet.pdf [<https://perma.cc/FMU2-AXCF>].

41. *Id.*

42. *Id.*

43. *Id.*

44. *Per- and Polyfluoroalkyl Substances (PFAS) and Your Health: PFAS Health Effects*, AGENCY FOR TOXIC SUBSTANCES & DISEASE REGISTRY (Jan. 10, 2018), <https://www.atsdr.cdc.gov/pfas/health-effects.html> [<https://perma.cc/AS4S-EZ3K>]; see also CHEREMISINOFF, *supra* note 16, at 66, 77.

45. AM. CANCER SOC’Y, *supra* note 19; see THE DEVIL WE KNOW, *supra* note 34 at 21:58–22:14.

3M.⁴⁶ In particular, Minnesota⁴⁷ and New York⁴⁸ are two states asserting actions on behalf of their citizens, with Minnesota achieving a multimillion-dollar settlement. Many consider these chemicals to be the “next PCB” because of the bioaccumulation affects and the realization that such chemicals will not leave the body.⁴⁹ As a result, it is no surprise that litigation is being used as a remedial mechanism that will likely continue for many years to come.⁵⁰

The second curative approach to the epidemic involves states enacting laws and promulgating regulations to ban manufacturing.⁵¹ While states have a right to be concerned over these chemicals and hope to implement effective laws and regulations, the new provisions under TSCA might preempt such efforts.⁵² As a result, states must examine TSCA closely to determine whether a continuance or the establishment of certain statutes are viable options.⁵³

46. See Matthew Thurlow et al., *PFAS Contamination Remains a Hot-Button Issue: Overview of Recent Regulatory, Litigation, and Technical Developments*, 19 ENVTL. LITIG. & TOXIC TORTS COMM. NEWSL. (Am. Bar Ass’n Section of Env’t., Energy & Res., Chicago, IL), Apr. 2018, at 19, 21.

47. See generally Amended Complaint at 1, *State of Minnesota v. 3M Co.*, No. 27-CV-10-28862 (Minn. Dist. Ct. Jan. 19, 2011) (complaint sought damages under MERLA, damages under MWPCA, damages for trespass, damages for common law nuisance, damages for statutory nuisance, and damages for negligence). This case settled for \$850 million and the money will be used to finance projects that involve drinking water and water sustainability. See Tiffany Kary, *3M Settles Minnesota Lawsuit for \$850 Million*, BLOOMBERG (Feb. 20, 2018, 3:53 PM), <https://www.bloomberg.com/news/articles/2018-02-20/3m-is-said-to-settle-minnesota-lawsuit-for-up-to-1-billion> [<https://perma.cc/F366-4J74>].

48. See generally Complaint at 1, *State of New York v. 3M Co.*, No. 904029-18 (N.Y. Sup. Ct. June 19, 2018) (complaint asserts cause of action for public nuisance, strict products liability for defective design, and strict products liability for failure to warn, in addition to a restitution claim).

49. Tiffany Kary, *To the EPA, ‘Forever Chemicals’ Are a Big Problem Now*, WASH. POST (Feb. 13, 2019), https://www.washingtonpost.com/business/to-the-epa-forever-chemicals-are-a-big-problem-now/2019/02/13/d9a75104-2f64-11e9-8781-763619f12cb4_story.html [<https://perma.cc/SSS7-W4WF>].

50. Individuals are also bringing private actions against manufacturers of PFAS. See *id.*

51. *Per- and Polyfluoroalkyl Substances (PFAS): State Legislation 2017-2018*, NAT’L CONFERENCE OF ST. LEGISLATURES (June 29, 2016), <http://www.ncsl.org/research/environment-and-natural-resources/per-and-polyfluoroalkyl-substances-pfas-state-laws.aspx> [<https://perma.cc/LAW2-9W24>].

52. Behnke, *supra* note 11, at 466–67.

53. *Id.* at 467.

III. OVERVIEW OF THE TOXIC SUBSTANCES CONTROL ACT

A. The Toxic Substances and Control Act of 1976

Congress adopted TSCA in 1976 in order to “prevent unreasonable risks of injury to health or the environment associated with manufacture, processing, distribution in commerce, use, or disposal of chemical substances.”⁵⁴ “TSCA promised to: (1) create an inventory of existing chemicals and require the premanufacture review of any chemical not included on this inventory; (2) require chemical manufacturers and processors to develop data on the health and environmental effects of their chemicals; and (3) restrict or require labeling on chemicals that present unreasonable risks.”⁵⁵ Proponents of TSCA believed that the statute would avoid the need for further federal regulations.⁵⁶ However, many scholars criticized TSCA for years, claiming that the EPA was unable to effectively utilize the statute for Congress’ intended purpose.⁵⁷

Scholars identified three predominant gaps in U.S. chemical policy, resulting from TSCA’s weaknesses: a (1) data gap, (2) safety gap, and (3) technology gap.⁵⁸ The alleged data gap was a product of not requiring producers to examine and divulge information on hazardous traits of chemicals to the government, public, or

54. S. REP. NO. 94-698, at 1 (1976), as reprinted in 1976 U.S.C.C.A.N. 4491, 4491; see also David Markell, *An Overview of TSCA, Its History and Key Underlying Assumptions, and Its Place in Environmental Regulation*, 32 WASH. U. J. L. & POL’Y 333, 338 (2010) (noting the purpose of the original TSCA enactment).

55. Jessica N. Schifano et al., *The Importance of Implementation in Rethinking Chemicals Management Policies: The Toxic Substances Control Act*, 41 ENVTL. L. REP. 10527, 10528 (2011).

56. 1977 COUNCIL ON ENVTL. QUALITY ANN. REP. 1, 347.

57. Michael P. Wilson & Megan R. Schwarzman, *Toward a New U.S. Chemicals Policy: Rebuilding the Foundation to Advance New Science, Green Chemistry, and Environmental Health*, 117 ENVTL. L. HEALTH PERSP. 1202, 1202 (2009) (claiming the statute has “prevented government, businesses, and the public from a) assessing the hazard traits of the great majority of chemicals in commerce; b) controlling chemicals of significant concern; and c) motivating broad industry investment in cleaner chemical technologies and safer alternatives, known collectively as green chemistry.”).

58. *Id.*

businesses that used said chemicals.⁵⁹ This gap illustrates how companies, such as 3M and DuPont, avoided liability for their injection of PFAS into the environment for years. Distinguishably, the safety gap was premised on the idea that the EPA lacked legal tools to “identify, prioritize, and take action to mitigate potential health and environmental effects of hazardous chemicals.”⁶⁰ Finally, the supposed technology gap relied on the notion that the government did not invest sufficiently in research, development, and education.⁶¹ Because of these gaps and the EPA’s inability to review safety components, hundreds of dangerous chemicals entered the market.⁶²

Another believed contributing factor to the original TSCA’s failure was the landmark asbestos decision, *Corrosion Proof Fittings v. EPA*.⁶³ Beginning in 1979, the EPA reviewed hundreds of asbestos studies and conducted public meetings, resulting in an asbestos ban.⁶⁴ The Fifth Circuit ultimately vacated the asbestos ban promulgated by the EPA on both procedural and substantive grounds.⁶⁵ Procedurally, the court concluded that the EPA failed to give the public sufficient notice.⁶⁶ Generally speaking, the EPA was required to “give notice as to its intended methodology while the public still has opportunity to analyze, comment, and influence the proceedings.”⁶⁷ Substantively, the court concluded that the EPA failed to abide by TSCA’s less burdensome alternatives for addressing unreasonable risks, failed to determine alternatives to a complete ban, and failed to assess risks with potential substitutes.⁶⁸ Because of the Fifth Circuit’s holding, legal commentators have viewed the original TSCA as imposing particularly high evidentiary hurdles for EPA regulators to

59. *Id.* The data gap prevented the EPA from instituting more than voluntary measures to act on early indicators of harm. *Id.* at 1202–04.

60. *Id.* at 1202.

61. *Id.*

62. *A New Chemical Safety Law: The Lautenberg Act*, ENVTL. DEF. FUND, <https://www.edf.org/health/policy/chemicals-policy-reform> [https://perma.cc/E2SJ-HPKY].

63. 947 F.2d 1201 (5th Cir. 1991).

64. *Id.* at 1207.

65. *Id.*

66. *Id.* at 1212.

67. *Id.*

68. *Id.* at 1229–30.

overcome.⁶⁹ Some commentators have gone as far as saying that the decision inflicted the most damage to the EPA's ability to regulate chemical substances.⁷⁰ With the court's remand of the asbestos ban, there seemed to be an assumption that the EPA might want to avoid rulemaking altogether in order to prevent another debacle like the asbestos ban.⁷¹

Although intended to create a healthier, safer environment for society, the original TSCA failed for numerous reasons. As such, Congress implemented a supposedly more effective act to correct these statutory weaknesses.⁷²

B. The Toxic Substances and Control Act Amendment: Frank R. Lautenberg Chemical Safety for the 21st Century Act

In 2016, Congress enacted the Frank R. Lautenberg Chemical Safety for the 21st Century Act ("LCSA"), an amendment to the Toxic Substances and Control Act of 1976.⁷³ At its core, the Amendment was in response to TSCA being "woefully out of step with the best and latest science relating chemical exposures to human health."⁷⁴ A driving motivation for the Amendment was to alleviate the EPA from a classic catch-22 situation, where the strict

69. LINDA-JO SCHIEROW, CONG. RESEARCH SERV., RL34118, THE TOXIC SUBSTANCES CONTROL ACT (TSCA): IMPLEMENTATION AND NEW CHALLENGES 17 (2009).

70. Robert B. Haemer, *Reform of the Toxic Substances Control Act: Achieving Balance in the Regulation of Toxic Substances*, 6 ENVTL. L. 102, 116 (1999).

71. *Id.* at 118. ("The fact that the court found ten years of rulemaking and a 45,000 page record inadequate to support a ban on asbestos makes it appear that EPA management has good reason to avoid rulemaking altogether."); see also Mark A. Greenwood, *TSCA Reform: Building a Program that Can Work*, 39 ENVTL. L. REP. 10034, 10034 (2009) ("In the early 1990s, when the courts rejected EPA's comprehensive ban on asbestos, TSCA became widely known as a 'broken' statute.").

72. See Behnke, *supra* note 11, at 464.

73. See *The Frank R. Lautenberg Chemical Safety for the 21st Century Act: A More Effective Way to Regulate Chemicals in Commerce*, AM. CHEMISTRY COUNCIL, <https://www.americanchemistry.com/LCSA-Learn-More.pdf> [<https://perma.cc/8ALU-5TW8>].

74. Richard A. Denison, *A Primer on the New Toxic Substances Control Act (TSCA) and What Led to It*, ENVTL. DEF. FUND 1 (Apr. 2017), <https://www.edf.org/sites/default/files/denison-primer-on-lautenberg-act.pdf> [<https://perma.cc/JXD2-EZ65>].

standards of the original TSCA led to the testing of only a few hundred chemicals.⁷⁵

Among the major revisions from LSCA is Section 18, which addresses preemption over state law.⁷⁶ Prior to the amendment, though legally feasible, the original TSCA did not often trigger preemption.⁷⁷ Now, preemption under LSCA has sparked major debate over whether it is too strict and ultimately prevents state autonomy given the abundance of state regulations.⁷⁸

The revised Section 18 sets forth all-purpose conditions for which states and political sectors are not permitted to establish or continue the enforcement of statutes, administrative actions, or criminal penalties.⁷⁹ LSCA provides that states can no longer establish or enforce the following: (1) development of information,⁸⁰ (2) chemical substances found not to present an unreasonable risk or restriction,⁸¹ and (3) significant new use.⁸² Broadly speaking, LSCA restrictions preclude state effort when the EPA proclaims a new rule that addresses identified risks posed by a chemical or determines, through a risk evaluation, that certain chemicals do not pose an unreasonable risk to the public.⁸³ Additionally, such preemptive conditions do not occur until the “effective date of the applicable action described. . . by the Administrator.”⁸⁴ However, if the EPA has failed to address a new

75. *Id.* at 3.

76. Toxic Substances Control Act, 15 U.S.C. § 2617 (2018).

77. *See, e.g.*, Hudson Riverkeeper Fund, Inc. v. Atl. Richfield Co., 138 F. Supp. 2d 482, 486 (S.D.N.Y. 2001) (noting that TSCA did not apply, but nonetheless, detailed the isolated instances when preemption would be triggered).

78. *See generally* LISA R. BURCHI, *Section 18 – State-Federal Relationship*, in NEW TSCA: A GUIDE TO THE LAUTENBERG CHEMICAL SAFETY ACT AND ITS IMPLEMENTATION 207, 207 (Lynn L. Bergeson & Charles M. Auer eds., 2017); *see also* Charles Franklin et al., *Pesticides, Chemical Regulation, And Right-To-Know*, in ABA ENVIRONMENT, ENERGY, & RESOURCES LAW: THE YEAR IN REVIEW 2016 74, 76 (ABA Env’t, Energy, & Res., 2016).

79. *See* BURCHI, *supra* note 78, at 207–08.

80. 15 U.S.C. § 2617(a)(1)(A).

81. *Id.* at § 2617(a)(1)(B).

82. *Id.* at § 2617(a)(1)(C).

83. *Id.* at § 2617(a)(1).

84. *Id.* at § 2617(a)(2) (a section 6 determination will need to be made). An example of this is “when a Section 4 rule is issued in final, not when it is proposed.” BURCHI, *supra* note 78, at 208.

chemical, states are not preempted unless, or until, the EPA takes the chemical under its existing authority.⁸⁵

In addition to the three categories of preemptive measures listed above, Section 18 also hinders state effort through what is referred to as “pause preemption.”⁸⁶ Unlike other preemption provisions, pause preemption might only be temporary.⁸⁷ This timing condition mandates when statutes, criminal penalties, or administrative actions cannot be enacted by states or political subdivisions.⁸⁸ Simply put, under 15 U.S.C. § 2617(b), no actions regarding a chemical may be established, “once the EPA defines the scope of a risk evaluation . . . and until the earlier of either: (1) the dead-line established under [15 U.S.C. § 2605(b)(4)(G)] for completion of the risk evaluation expires or (2) the date on which the EPA publishes the risk evaluation under TSCA [15 U.S.C. § 2605(b)(4)(C)].”⁸⁹ This provision is referred to as pause preemption because it provides a time frame for when states are preempted from acting.⁹⁰ It does not, however, prohibit state action while the EPA deliberates over whether a chemical might pose an unreasonable risk.⁹¹ The chemical must be designated as “a high-priority substance” to fall under pause preemption.⁹² Additionally, pause preemption will not occur when the EPA is “preparing risk evaluations for the initial batch of 10 Work Plan chemical substances,”⁹³ the first ten chemicals selected in 2016 to be evaluated under the new TSCA amendments.

85. See Denison, *supra* note 74, at 8.

86. See 15 U.S.C. § 2617(b); BURCHI, *supra* note 78, at 209; see also *The Frank R. Lautenberg Chemical Safety for the 21st Century Act: Frequent Questions*, EPA (Oct. 24, 2016), https://www.epa.gov/sites/production/files/2016-10/documents/lautenberg_chemical_safety_for_the_21st_century_act_update_faqs_102416_0.pdf [<https://perma.cc/TC3B-V8S3>] [hereinafter *Frequent Questions*].

87. 15 U.S.C. § 2617(b)(1).

88. *Id.*

89. BURCHI, *supra* note 78, at 209.

90. See 15 U.S.C. § 2617(b)(1); BURCHI, *supra* note 78, at 209 (“[F]or example, before the scope of a risk evaluation is defined or even after EPA determines in a risk evaluation that a chemical presents an unreasonable risk but before a final Section 6(a) rule based on the risk evaluation is issued.”).

91. BURCHI, *supra* note 78, at 209.

92. 15 U.S.C. § 2605(b)(1)(B)(i).

93. *Frequent Questions*, *supra* note 86 (“i.e., those that must be identified under 6(b)(2)(A)” or 15 U.S.C. § 2605(b)(2)(A)). Under TSCA reform, the EPA listed ten chemicals that would be evaluated first for potential risks to human health and the environment. News Release, EPA, EPA Names First Chemicals

While the implementation of LSCA came with strict preemption provisions, the amendment also created exceptions to preemption along with the preservation of certain state laws. In regard to exceptions, LSCA does not preempt states from enacting or enforcing rules, standards of performance, risk evaluation, scientific assessment, or any other protection for public health or the environment, if such enactment falls within one of four categories: (1) adopted or authorized under a different federal law or approved by another federal law,⁹⁴ (2) implements reporting, monitoring, or other information obligation for the chemicals not required by the EPA under any other federal law,⁹⁵ (3) adopted under state law which relates to water quality, air quality, or waste treatment or disposal (subject to exceptions),⁹⁶ or (4) is identical to the EPA's requirement.⁹⁷ However, the exception involving adopting regulations of chemicals under other state law imposes three limitations: (1) state action cannot impose restriction of manufacture, processing, distribution in commerce, or use of a chemical substance,⁹⁸ and (2) addresses the same hazardous issues as the EPA, but does not reach the same conclusion,⁹⁹ or (3) would cause a violation of the EPA's action under Section 2604 (manufacturing and processing notices) or Section 2605 (prioritization, risk evaluation, and regulation of chemical substances and mixtures).¹⁰⁰

As noted, LSCA allows for the preservation of certain preexisting state laws and regulations.¹⁰¹ Specifically, state efforts taken prior to April 22, 2016, which prohibit or impede "manufacturing, processing, distribution in commerce, use, or disposal of a chemical substance" are not preempted.¹⁰² Additionally, any action taken pursuant to a state law that was in

for Review Under New TSCA Legislation (Nov. 29, 2016), https://19january2017snapshot.epa.gov/newsreleases/epa-names-first-chemicals-review-under-new-tsc-a-legislation_.html [<https://perma.cc/EQ9N-93JC>].

94. 15 U.S.C. § 2617(d)(1)(A)(i).

95. *Id.* at § 2617(d)(1)(A)(ii).

96. *Id.* at § 2617(d)(1)(A)(iii).

97. *Id.* at § 2617(d)(1)(A)(iv).

98. *Id.* at § 2617(d)(1)(A)(iii)(I).

99. *Id.* at § 2617(d)(1)(A)(iii)(I)(aa).

100. *Id.* at § 2617(d)(1)(A)(iii)(II)(bb).

101. *Id.* at § 2617(e).

102. *Id.* at § 2617(e)(1)(A).

effect on or prior to August 31, 2003, is not preempted.¹⁰³ For example, California's Proposition 65, enacted in 1986,¹⁰⁴ would be protected from preemption because of its ratification date.

Another significant change is the waivers provision.¹⁰⁵ Prior to the 2016 amendment, TSCA could waive federal preemption under two situations: (1) the state or political subdivision requirement would not unduly burden interstate commerce, or (2) the state or political subdivision requirement would provide a significantly higher degree of protection from risks described in the section titled "Preemption."¹⁰⁶ Now, the waiver process has become more complex, resulting in discretionary and non-discretionary waivers.¹⁰⁷

The discretionary provision permits the EPA to exempt a statute, criminal penalty, or administrative action of a state or political subdivision¹⁰⁸ from preemption only if the federal government makes several determinations: (1) compelling conditions (e.g., protection of health and environment) exist to grant the waiver;¹⁰⁹ (2) complying with a proposed requirement of a state or political subdivision would not "unduly burden interstate commerce" in the manufacturing, distribution in commerce, or use of a chemical substance;¹¹⁰ (3) complying would not result in a violation of any applicable federal laws;¹¹¹ and (4) the proposed requirement of the state or political subdivision is consistent with paramount science, supported by studies conducted with "sound and objective practices," and based on scientific evidence.¹¹²

With regard to the non-discretionary provision, the EPA is directed to exempt from the pause preemption provision¹¹³ a statute or administrative action that relates to the effect of exposure to chemical substances under conditions if the following

103. *Id.* at § 2617(e)(1)(B).

104. *See Proposition 65*, CAL. OFF. OF ENVTL. HEALTH HAZARD ASSESSMENT, <https://oehha.ca.gov/proposition-65> [<https://perma.cc/Z4KR-A7RV>].

105. 15 U.S.C. § 2617(f); *see also* Env'tl. Def. Fund, *supra* note 9, at 10.

106. S. 3149, 94th Cong. § 18(b)(1)–(2) (as passed by 2nd Session, 1976).

107. *See* 15 U.S.C. § 2617(f).

108. *Id.* at § 2617(f)(1).

109. *Id.* at § 2617(f)(1)(A).

110. *Id.* at § 2617(f)(1)(B).

111. *Id.* at § 2617(f)(1)(C).

112. *Id.* at § 2617(f)(1)(D)(i)–(iii).

113. *Id.* at § 2617(b).

is determined: (1) complying with a proposed requirement would not “unduly burden interstate commerce” with regard to manufacturing, processing, distributing in commerce, or use of chemical substance; (2) complying with a proposed requirement would not cause a violation of a federal law, rule, or order; and (3) the State or political subdivision has concerns regarding the chemical substance or use of the substance based on peer-reviewed science.¹¹⁴ Additionally, the EPA must waive pause preemption when a statute or proposed administrative action, intending to prohibit or restrict “the manufacture, processing, distribution in commerce, or use of the chemical substance,” was enacted within eighteen months after the EPA prioritized or published the scope of the risk evaluation for the chemical substance.¹¹⁵

Determinations of discretionary and non-discretionary waivers must be made no later than 180 days and 110 days, respectively, after the application for a waiver is submitted.¹¹⁶ When a decision by the EPA is not made within the 110 days for a non-discretionary waiver, the federal statute or administrative action that preempts states is considered non-existing, and the state or political subdivision will automatically receive a waiver.¹¹⁷

C. Constitutionality of LSCA

Though many believe that LSCA corrected numerous shortcomings of the original TSCA, overly strict preemptive provisions have legislators and scholars concerned about the states’ ability to regulate chemicals.¹¹⁸ Because of the country’s increased concern over the restrictive nature of the new TSCA, an examination of whether the statute delegates too much power to the EPA is necessary.

114. *Id.* at § 2617(f)(2)(A)(i)-(iii).

115. *Id.* at § 2617(f)(2)(B).

116. *Id.* at § 2617(f)(3)(A)-(B).

117. *See id.* at § 2617(f)(4). If the State or political subdivision automatically receives the waiver, the statute or administrative action will not be considered preempted, forcing the EPA to abide by these deadlines or face consequences. *Id.* at § 2617(f)(9)(A)-(B); *see also* BURCHI, *supra* note 78, at 214.

118. *See generally* David Goldston, *Not ‘Til the Fat Lady Sings: TSCA’s Next Act*, 33 ISSUES IN SCI. & TECH. 1, 1 (2016).

Under the United States Constitution, Congress has the exclusive right to exercise federal legislative power.¹¹⁹ The Constitution prohibits Congress from asserting such powers if it would exceed the scope of Article I.¹²⁰ Additionally, allocating legislative authority to the executive or judicial branches of government is prohibited under the nondelegation doctrine as such concept is “rooted in the principle of separation of powers that underlies our tripartite system of Government.”¹²¹ However, “[i]f Congress shall lay down by legislative act an intelligible principle to . . . the person or body authorized . . . such legislative action is not a forbidden delegation of legislative power.”¹²² This exception focuses on the degree of discretion Congress may entrust to the executive branch’s federal regulators.¹²³

The Supreme Court addressed the question of power delegated to federal regulators in *Whitman v. Am. Trucking Ass’ns*.¹²⁴ In *Whitman*, the Supreme Court examined a provision of the Clean Air Act (“CAA”), and addressed whether such provision violated the nondelegation doctrine.¹²⁵ The lower court found that the statute provided too much discretion to the EPA to determine air quality standards.¹²⁶ The Supreme Court reversed and affirmed in part finding that

[s]ection 109(b)(1) of the CAA, which to repeat we interpret as requiring the EPA to set air quality standard at a level that is “requisite”—that is, not lower than is necessary—to protect the public health with an adequate margin of safety, fits comfortably within the scope of discretion permitted by our precedent.¹²⁷

119. U.S. CONST. art. I, § 1 (“All legislative Powers herein granted shall be vested in a Congress of the United States, which shall consist of a Senate and House of Representatives.”).

120. U.S. CONST. amend X. (“The powers not delegated to the United States by the Constitution, nor prohibited by it to the States, are reserved to the States respectively, or to the people.”).

121. *Mistretta v. United States*, 488 U.S. 361, 371 (1989).

122. *J. W. Hampton, Jr., & Co. v. United States*, 276 U.S. 394, 409 (1928).

123. *Id.* at 407.

124. *Whitman v. Am. Trucking Ass’ns, Inc.*, 531 U.S. 457 (2001).

125. *Id.* at 463.

126. *Id.* at 472.

127. *Id.* at 475–76.

Though agreeing with the majority's overall outcome on the issue, in his concurring opinion, Justice Clarence Thomas noted the potential for violation of the nondelegation doctrine with regard to congressional actions that appear to meet the intelligible doctrine test.¹²⁸ Justice Thomas further opined that he was "not convinced that the intelligible principle doctrine serves to prevent all cessions of legislative power . . . there are cases in which the principle is intelligible and yet the significance of the delegated decision is simply too great for the decision to be called anything other than 'legislative.'" ¹²⁹ To address his potential concern, Justice Thomas indicated that the Court should reexamine whether the "delegation of jurisprudence. . . strayed too far from our Founders' understanding of separation of powers" at some later date.¹³⁰

Whitman is just one of many cases where the Supreme Court upheld the delegation of power to federal regulators.¹³¹ Because of cases like *Whitman*, it is unlikely courts would find justification to invoke the nondelegation doctrine in the context of TSCA.¹³² Congress avoids the invocation of the nondelegation doctrine if, instead of providing the EPA free reign to make law, it authorizes the regulators to flesh out details of law;¹³³ thus, in doing so, Congress provides agencies vast discretionary authority.¹³⁴

With the enactment of LSCA, Congress detailed its intent to protect the environment and individuals from potentially harmful

128. *Id.* at 487.

129. *Id.*

130. *Id.*

131. *Id.* at 486; *see, e.g.*, *Dep't. of Transp. v. Ass'n of Am. R.R.*, 135 S. Ct. 1225, 1234 (2015) (failing to enforce nondelegation doctrine and remanding for further consideration); *Yakus v. United States*, 321 U.S. 414, 425-26 (1944) (finding that the Administrator's authority to fix prices was not an unauthorized delegation of power); *Nat'l Broadcasting Co. v. United States*, 319 U.S. 190, 225-26 (1943) (finding an intelligible principle authorizing regulation in public interest, convenience, or necessity).

132. In its most recent review of delegated authority, the Supreme Court once again failed to invoke the nondelegation doctrine. *See Gundy v. United States*, 139 S. Ct. 2116 (2019). The most recent invocations of the nondelegation doctrine occurred in the 1930s. *See generally* A.L.A. *Schechter Poultry Corp. v. United States*, 295 U.S. 495 (1935); *Panama Refining Co. v. Ryan*, 293 U.S. 388, 429-30 (1935).

133. William K. Kelley, *Justice Scalia, the Nondelegation Doctrine, and Constitutional Argument*, 92 NOTRE DAME L. REV. 2107, 2111 (2017).

134. *Id.* at 2110.

manufactured chemicals.¹³⁵ Additionally, as described in Section B of Part III of this Note, Congress specified preemption guidelines for the EPA to enforce upon the states. The preemption situations include, when the EPA has made a new development of information,¹³⁶ when the EPA finds that chemical substances do present an unreasonable risk,¹³⁷ or when the EPA promulgates a significant new use.¹³⁸ As such, Congress did not empower the EPA to establish these restrictive preemption provisions, but rather, provided the guidelines for effectively limiting state action while the federal government conducts examinations of harmful chemicals. If Congress provided little guidance under the preemption statute and the EPA began to invoke federal preemption over states, such a situation might spark the Supreme Court to revive the nondelegation doctrine, as the EPA would effectively be establishing its own guidelines to minimize state action.

However, while it appears that Congress did not violate the nondelegation doctrine, it is still possible that the TSCA preemption provisions impose a situation that is too great for “anything other than [the] ‘legislat[ure].’”¹³⁹ Environmental law is an area typically regulated by the states, since states have the potential to provide additional resources to combat emerging problems.¹⁴⁰ While the states traditionally have more regulatory power with regard to environmental law, the nondelegation doctrine’s lack of use to invalidate a statute since the 1900s¹⁴¹ suggests that Justice Thomas’ concern will not be addressed in the context of TSCA.

135. *See generally* 15 U.S.C. §§ 2601–2629 (2018).

136. *Id.* at § 2617(a)(1)(A).

137. *Id.* at § 2617(a)(1)(B).

138. *Id.* at § 2617(a)(1)(C).

139. *Whitman v. Am. Trucking Ass’ns*, 531 U.S. 457, 487 (2001) (Thomas, J., concurring).

140. *See Zellmer, supra* note 7, at 98.

141. *See generally* *A.L.A. Schechter Poultry Corp. v. United States*, 295 U.S. 495 (1935); *Panama Refining Co. v. Ryan*, 293 U.S. 388 (1935).

IV. FEDERAL REGULATIONS OF PFAS UNDER TSCA

A. The EPA's Regulatory Scheme of PFAS

While assistance from the judicial branch seems unlikely in providing a corrective solution to the preemption provisions, states may still have the ability to regulate PFAS without violating TSCA. Regulation of such chemicals will depend on whether the EPA has taken sufficient measures to trigger the preemption provisions. Specifically, the EPA designating chemicals to be a “high-priority”¹⁴² or an “unreasonable risk”¹⁴³ to society will indicate preemption. Additionally, state statutes that require the development of information that the EPA will have already produced under current TSCA provisions will be preempted.¹⁴⁴ States can also be preempted when a state regulatory action contradicts a Significant New Use Rule (“SNUR”) promulgated by the EPA.¹⁴⁵ Thus the question becomes: are the EPA's actions to date enough to preempt state regulatory effort?

As previously addressed, PFAS have long been recognized as chemicals found in manufactured goods, water supplies, and the air. Because these chemicals were found to be harmful to both the environment and individuals, the EPA has taken a variety of regulatory actions to address the manufacturing of PFAS.¹⁴⁶ Beginning in 2002, the EPA published various SNURs, including a requirement to notify the EPA before manufacturing or importing certain PFAS which were part of the voluntary phase out by 3M.¹⁴⁷ Chemicals that were highly technical, and could not be substituted, were allowed for limited use.¹⁴⁸ That same year, the EPA issued a SNUR for seventy-five PFAS, which required manufacturers or importers to notify the EPA ninety days before

142. 15 U.S.C. § 2605(b)(1)(B)(i).

143. *Id.* at § 2617(a)(1)(B).

144. *Id.* at § 2617(a)(1)(A).

145. *Id.* at § 2604(a).

146. *Risk Management for Per- and Polyfluoroalkyl Substances (PFAS) Under TSCA*, EPA (July 20, 2018), <https://www.epa.gov/assessing-and-managing-chemicals-under-tsca/risk-management-and-polyfluoroalkyl-substances-pfass> [<https://perma.cc/SW3J-EDFP>].

147. *Id.*; see also Korzeniowski, *supra* note 24, at 6.

148. EPA, *supra* note 146.

manufacturing or importing the specified PFAS.¹⁴⁹ Both SNURs from 2002 required a review process by the EPA for any other use of the specific PFAS listed.¹⁵⁰

In 2006, the EPA invited eight leading companies in the PFAS industry to join its stewardship program with two primary goals:

[1] [to] commit to achieve, no later than 2010, a 95 percent reduction, measured from a year 2000 baseline, in both facility emissions to all media of perfluorooctanoic acid (PFOA), precursor chemicals that can break down to PFOA, and related higher homologue chemicals, and product content levels of these chemicals. [2] To commit to working toward elimination of these chemicals from emissions and products by 2015.¹⁵¹

EPA progress reports reflect that all eight companies met the two goals;¹⁵² some companies simply eliminated manufacturing uses of the chemicals, while others left the PFAS industry all together.¹⁵³ Finally, in 2013, the EPA issued another SNUR requiring all companies that sold carpets to report uses of certain PFOA-related chemicals if the chemicals were in the manufacturing process or if the chemical would be used in imported carpets.¹⁵⁴

With regard to current actions, in January 2015, the EPA proposed a SNUR that would require manufacturers and importers of PFOA and PFOA-related chemicals to notify the EPA at least ninety days before starting or resuming use of these chemicals in

149. EPA, EPA'S PER- AND POLYFLUOROALKYL SUBSTANCES (PFAS) ACTION PLAN 48 (Feb. 14, 2019), https://www.epa.gov/sites/production/files/2019-02/documents/pfas_action_plan_021319_508compliant_1.pdf [<https://perma.cc/YJL2-L9KU>].

150. See EPA, *supra* note 146.

151. *Fact Sheet: 2010/2015 PFOA Stewardship Program*, EPA (Aug. 9, 2018), <https://www.epa.gov/assessing-and-managing-chemicals-under-tsca/fact-sheet-20102015-pfoa-stewardship-program#what> [<https://perma.cc/ZWN7-SDFE>]. The companies that participated in the program included: Arkema, Asahi, BASF Corporation (successor to Ciba), Clariant, Daikin, 3M/Dyneon, DuPont, and Solvay Solexis. *Id.*

152. *Id.*; see also *2010/2015 PFOA Stewardship Program – 2014 Annual Progress Reports*, EPA (Apr. 10, 2017), <https://www.epa.gov/assessing-and-managing-chemicals-under-tsca/20102015-pfoa-stewardship-program-2014-annual-progress> [<https://perma.cc/ED89-NCQ4>].

153. See EPA, *supra* note 151.

154. See EPA, *supra* note 146; see also EPA, *supra* note 149, at 48.

products.¹⁵⁵ Such notification would provide the EPA time to evaluate the new use and take necessary actions to prohibit or limit activity.¹⁵⁶ Additionally, the EPA has enacted the New Chemicals Program where the review of potential substitutes to PFAS is conducted.¹⁵⁷ This program requires testing consistent with TSCA provisions¹⁵⁸ and “restricts uses pending development of an adequate understanding of the chemical’s fate and effects . . . and requires that the substitutes not be contaminated significantly with longer chain-length perfluorinated substances of concern.”¹⁵⁹ Companies that manufacture a new chemical for non-exempt commercial purposes must notify the EPA under this program.¹⁶⁰ If the chemical is listed on the TSCA inventory, the substance is not considered new, but rather existing;¹⁶¹ therefore, no submission to the EPA would be necessary.¹⁶²

Most recently, on February 14, 2019, the EPA released the first ever nationwide PFAS Action Plan.¹⁶³ One of the EPA’s major proposals is to issue a regulatory determination which would potentially result in a new Maximum Contaminant Level (“MCL”) for PFOA and PFOS under the Safe Drinking Water Act.¹⁶⁴ Additionally, the EPA plans to revisit the 2015 SNUR proposal after considering public comments recently submitted,¹⁶⁵ as well as designate PFOA and PFOS as hazardous substances.¹⁶⁶ Though

155. EPA, *supra* note 146.

156. *Id.*

157. *New Chemicals Program Review of Alternatives for PFOA and Related Chemicals*, EPA (Sept. 13, 2018), <https://www.epa.gov/assessing-and-managing-chemicals-under-tsca/new-chemicals-program-review-alternatives-pfoa-and> [<https://perma.cc/UJR2-2SJH>].

158. 15 U.S.C. § 2604(e) (2018).

159. EPA, *supra* note 157.

160. *Basic Information for the Review of New Chemicals*, EPA (May 18, 2017), <https://www.epa.gov/reviewing-new-chemicals-under-toxic-substances-control-act-tsca/basic-information-review-new#new%20chemical> [<https://perma.cc/PQ2H-UD34>].

161. *Id.*

162. *Id.*

163. News Release, EPA, EPA Acting Administrator Announces First-Ever Comprehensive Nationwide PFAS Action Plan (Feb. 14, 2019), <https://www.epa.gov/newsreleases/epa-acting-administrator-announces-first-ever-comprehensive-nationwide-pfas-action-plan> [<https://perma.cc/6TS6-WZFG>].

164. See EPA, *supra* note 149, at 2.

165. *Id.* at 16.

166. *Id.* at 28.

historic in nature and seemingly progressive at first glance, many states believe the EPA's Action Plan is not addressing the continued concerns of PFAS at a swift enough pace.¹⁶⁷ As a result, states that desire a more proactive approach to combatting PFAS must determine whether the EPA's actions sufficiently trigger preemption under TSCA.

B. Are states preempted from enacting regulations?

In light of the EPA's regulatory practices with PFAS, states face the question of whether they may regulate these chemicals or whether federal action preempts their efforts. Based on the EPA's actions discussed in Section A of Part III of this Note, states may very well be facing preemptive measures.

Of the two main categories, pause preemption appears to be the most straightforward. In order to invoke pause preemption, the EPA must initiate a risk evaluation process to appraise the safety of an existing chemical.¹⁶⁸ The first step in the risk evaluation process is prioritizing an existing chemical.¹⁶⁹ Though the EPA has made several strides in regulating PFAS over the years, such chemicals are on a should prioritize list.¹⁷⁰ In other words, the EPA has not officially started the risk evaluation process that would place states in a pause preemption period. Even if pause preemption was initiated, some states could still regulate PFAS if

167. See Cecelia Smith-Schoenwalder, *Frustrated by EPA, States Blaze Ahead on PFAS*, E&E NEWS (Mar. 4, 2019), <https://www.eenews.net/stories/1060123043> [<https://perma.cc/B9MH-Z8KZ>]; see, e.g., *Wheeler's Nationwide PFAS Action Plan Fails Communities*, EARTHJUSTICE (Feb. 14, 2019), <https://earthjustice.org/news/press/2019/wheeler-s-nationwide-pfas-action-plan-fails-communities> [<https://perma.cc/9U78-ZKYN>].

168. See BURCHI, *supra* note 78, at 209.

169. *Prioritizing Existing Chemicals for Risk Evaluation*, EPA (last updated Aug. 16, 2019), <https://www.epa.gov/assessing-and-managing-chemicals-under-tsca/prioritizing-existing-chemicals-risk-evaluation> [<https://perma.cc/JZF7-HBKF>].

170. EPA, OFFICE OF CHEMICAL SAFETY AND POLLUTION PREVENTION, A WORKING APPROACH FOR IDENTIFYING POTENTIAL CANDIDATE CHEMICALS FOR PRIORITIZATION 1 (Sep. 27, 2018), https://www.epa.gov/sites/production/files/2018-09/documents/preprioritization_white_paper_9272018.pdf [<https://perma.cc/PHM6-6QB9>].

a pre-existing law was in existence within a specified time period (e.g., California).¹⁷¹

Overcoming the pause preemption hurdle is not as steep as the three provisions listed under Section 18.¹⁷² The second portion of Section 18, “Chemical substances found not to present an unreasonable risk or restricted,”¹⁷³ does not seem to be at issue regarding PFAS. As mentioned, even though the EPA has taken numerous steps to eliminate the manufacturing of some PFAS, there is no indication that PFAS have been designated as posing an unreasonable risk of injury to health or the environment, and further, no formal risk evaluation has been undertaken.¹⁷⁴

However, where states face the greatest hurdle lies within the first portion of Section 18, “Development of Information.”¹⁷⁵ Under the first portion of Section 18, if “[a] statute or administrative action that would require the ‘development of information’ that is ‘reasonably likely to produce the same information required’ under a TSCA Section 4, 5, or 6 rule, consent agreement, or order,” such state effort would be impermissible and preempted by federal law.¹⁷⁶ Because the first portion of Section 18 provides the potential for states to face preemption via three different provisions, an examination of all three is necessary.

First, while studies show that PFAS do pose harmful risks to health and the environment, testing is still necessary to provide definitive answers.¹⁷⁷ As a result, current state laws requiring a development of information would not “produce the same data” under Section 4, as no such data pursuant to section 4 exists—the federal government has not developed definitive statistics regarding PFAS. Second, Section 5, which deals with SNURs, will

171. 15 U.S.C. § 2617(e)(1)(B) (2018) (noting actions taken pursuant to State law prior to August 31, 2003, will not be preempted).

172. *Id.* at § 2617(a)(1).

173. *Id.* at § 2617(a)(1)(B).

174. *See generally PFAS Laws and Regulations*, EPA (July 30, 2018), <https://www.epa.gov/pfas/pfas-laws-and-regulations> [https://perma.cc/6D9M-8SUN].

175. 15 U.S.C. § 2617(a)(1)(A).

176. *See BURCHI, supra* note 78, at 208.

177. *See EPA Pressed to Use ‘Discretionary’ TSCA Authority to Address PFAS*, CHEMICAL WATCH (Nov. 8, 2018), <https://chemicalwatch.com/71712/epa-pressed-to-use-discretionary-tsca-authority-to-address-pfass#overlay-strip> [https://perma.cc/BPJ6-YJFP].

be addressed more specifically in the following paragraph, but it appears such section may be a problem. Third, Section 6 requires the EPA to have taken risk management steps for states to be preempted.¹⁷⁸ The EPA has not prioritized PFAS yet,¹⁷⁹ which means the risk management process has yet to begin.¹⁸⁰ As a result, until the EPA designates PFAS as not an unreasonable risk or promulgates a rule addressing the identified risks posed, states are not preempted from enacting laws to regulate PFAS under Section 6.

The third portion of Section 18, “Significant New Use,”¹⁸¹ is the likely source for current state preemption. As discussed, the EPA proposed a SNUR in 2015 that would require manufacturers and importers of PFOA and PFOA-related chemicals to notify the EPA at least ninety days before starting or resuming use of these chemicals in products.¹⁸² This proposal has not been enacted yet as the EPA is currently working on a re-proposal that requires both compliance with requirements of TSCA and an analysis of public commentary.¹⁸³ If this proposal goes through, it could put certain state regulation at risk of preemption. Specifically, states that have initiated, or are in the process of enacting complete bans on PFAS, could be in direct conflict with this SNUR if the EPA permits certain types of PFAS to be reintroduced to the manufacturing process.

Though the 2015 SNUR could be a problem, states currently must examine prior SNURs, starting from 2002. SNURs ranging from 2002 through 2013 require parties to notify the EPA for the reasons of future manufacturing and future importing of certain PFAS.¹⁸⁴ However, these SNURs do not encompass every PFAS. As such, states that enact complete bans on PFAS would likely face preemption for the particular PFAS listed in the SNURs ranging

178. See *Regulations of Chemicals Under Section 6(a) of the Toxic Substances Control Act*, EPA (Aug. 2, 2018), <https://www.epa.gov/assessing-and-managing-chemicals-under-tsca/regulation-chemicals-under-section-6a-toxic-substances> [https://perma.cc/27AE-YHGP].

179. See generally EPA, *supra* note 170.

180. See EPA, *supra* note 169.

181. 15 U.S.C. § 2617(a)(1)(C) (2018).

182. See EPA, *supra* note 151.

183. See EPA, *supra* note 149, at 16.

184. See *id.* at 12.

from 2002 through 2013¹⁸⁵ because a complete ban would mean those specified PFAS would not have the option for potential future use; thus, a complete ban would be in direct conflict with the SNURs. Under SNURs from 2002 to 2013, the EPA could allow specified PFAS to be reintroduced into the manufacturing and importation process. Therefore, it appears that states are partially preempted—states likely cannot regulate PFAS listed in SNURs ranging from 2002 through 2013.

V. COMPARISON OF STATE LAW AND WHETHER THERE SHOULD BE A CONCERN OF FACING TSCA'S PREEMPTION PROVISIONS IN THE FUTURE.

Although it appears the EPA has initiated enough regulation to partially preempt governing actions, states should be mindful of the possibility that preemption could eventually completely hinder future regulatory efforts. As previously discussed, LSCA implemented provisions that exempt certain state actions from federal preemption, if such actions meet specific dates.¹⁸⁶ When LSCA was enacted, consideration was given to certain states, such as California, in order to preserve existing legislation that had played important roles in chemical regulations. However, some states, such as West Virginia, may face difficulties now and in the future.

A. California

California's Proposition 65, officially known as the Safe Drinking Water and Toxic Enforcement Act of 1986, is one of a few grandfathered state laws protected from TSCA preemption.¹⁸⁷ The

185. *See generally* Perfluoroalkyl Sulfonates; Significant New Use Rule, 67 Fed. Reg. 11008–13 (Mar. 11, 2002); 67 Fed. Reg. 72854–67 (Dec. 9, 2002); 72 Fed. Reg. 57222–35 (Oct. 9, 2007); 72 Fed. Reg. 62443–204 (Oct. 22, 2013).

186. 15 U.S.C. § 2617(e)(1); *see also* *What is Preempted and Not Preempted Under the Frank R. Lautenberg Chemical Safety for the 21st Century Act*, ENVTL. DEF. FUND (2016), <http://blogs.edf.org/health/files/2016/05/Preemption-under-FRL21-5-23-16-final.pdf> [<https://perma.cc/PN3T-M2YD>].

187. CAL. LEGISLATIVE ANALYST'S OFFICE, NEW FEDERAL TOXICS LAW COULD HAVE FUTURE IMPLICATIONS FOR STATE, (Oct. 5, 2016), <https://lao.ca.gov/Publications/Report/3504> [<https://perma.cc/WS2X-KVZ3>]. Massachusetts' Toxic Use Reduction Act is another grandfathered legislation. *See*

California law, in part, was enacted to safeguard the state's drinking water from chemicals known to have various negative consequences, including birth and reproductive defects and cancer.¹⁸⁸ Because of the ubiquitous and persistent nature of PFAS, California added two specific types, PFOS and PFOA, to Proposition 65's list of chemicals known to cause reproductive toxicity.¹⁸⁹ Since the chemicals were added to this list, "companies doing business in California with 10 or more employees will be required to provide a 'clear and reasonable' warning before knowingly and intentionally exposing anyone to PFOA or PFOS."¹⁹⁰ Even more pressure will fall on companies that are unable to prove the need for these chemicals as they will face damaging legal consequences. For instance, civil penalties for the use of these substances can reach as high as \$2,500 per violation each day.¹⁹¹ Companies that use these PFAS regularly for manufacturing purposes could be looking at upwards of a million dollars for one year if only one violation occurs each day.¹⁹² Due to the legal risks associated with PFAS in the manufacturing process, businesses are recommended to examine the amount of PFAS exposure their products encounter regularly and transition to PFAS-free equipment and supplies.¹⁹³

Even though it appears the EPA triggers preemption under TSCA, various implementations from California to date will not be disturbed. As previously addressed, California is safe from nearly all preemption under TSCA as long as PFAS regulation is brought

generally, COMMONWEALTH OF MASS., MASSDEP TOXICS USE REDUCTION PROGRAM (2019), <https://www.mass.gov/guides/massdep-toxics-use-reduction-program> [https://perma.cc/UUZ7-9J62].

188. See CAL. OFF. OF ENVTL. HEALTH HAZARD ASSESSMENT, *supra* note 104.

189. *Perfluorooctane Sulfonate (PFOS)*, CAL. OFFICE OF ENVTL. HEALTH HAZARD ASSESSMENT (2019), <https://oehha.ca.gov/proposition-65/chemicals/perfluorooctane-sulfonate-pfos-and-its-salts> [https://perma.cc/D7AJ-976F]; *Perfluorooctanoic Acid (PFOA)*, CAL. OFFICE OF ENVTL. HEALTH HAZARD ASSESSMENT (2019), <https://oehha.ca.gov/proposition-65/chemicals/perfluorooctanoic-acid-pfoa-and-its-salts> [https://perma.cc/3UPM-45VG].

190. Jeffery Dintzer & Nathaniel Johnson, *INSIGHT: PFAS Liability Is Coming to California*, BLOOMBERG ENV'T & ENERGY (Oct. 31, 2018, 7:01 AM), <https://news.bloombergenvironment.com/environment-and-energy/insight-pfas-liability-is-coming-to-california> [https://perma.cc/EX3Y-EZQL].

191. *Id.*

192. *Id.*

193. *Id.*

under Proposition 65. For instance, California properly noted that PFOS and PFOA chemicals were added to the Proposition 65 list because of the known reproductive defects. Proposition 65 was specifically enacted to regulate chemicals that have reproductive consequences¹⁹⁴ and therefore, any regulation of at least PFOS and PFOA would fall within the scope of the legislative act. Since California enacted this legislation prior to August 31, 2003,¹⁹⁵ the State has created a safe haven for most future regulations involving PFAS. However, if California wants to regulate PFAS other than PFOA and PFOS, the State should individually list these additional chemicals under Proposition 65.

B. West Virginia

While California is merely one of numerous states already addressing PFAS contamination,¹⁹⁶ other states, which might enact new state regulations or rely on current state regulations to combat PFAS, may be unable to avoid preemption under TSCA. Specifically, West Virginia could fall within the category of unprotected states susceptible to preemption. Typically, West Virginia is not known for being a green state, and has few implemented environmental protections.¹⁹⁷ Fewer protections might leave West Virginia vulnerable to TSCA's strict preemption provisions.

Following the EPA's lifetime advisory warning of certain PFAS, West Virginia's Bureau for Public Health published an announcement regarding health concerns.¹⁹⁸ Other than the publication addressing the EPA's advisory, West Virginia has yet to employ corrective solutions to PFAS problems, even though the

194. See CAL. OFF. OF ENVTL. HEALTH HAZARD ASSESSMENT, *supra* note 104.

195. 15 U.S.C. § 2617(e)(1)(B) (2018).

196. See *Bill Tracker*, SAFER STATES, <http://www.saferstates.com/bill-tracker/> [<https://perma.cc/B8LQ-X5NR>]. New York has proposed legislation to ban the manufacture and sale of food packaging containing PFAS. See *States in the Lead: New York*, SAFER STS., <http://www.saferstates.com/states-in-the-lead/new-york/> [<https://perma.cc/XFZ6-CSYW>].

197. See John S Kiernan, *2018's Greenest States*, WALLETHUB (Apr. 15, 2019), <https://wallethub.com/edu/greenest-states/11987/> [<https://perma.cc/KBY7-LSYJ>].

198. See W. VA. BUREAU FOR PUBLIC HEALTH, PERFLUORINATED COMPOUNDS DRINKING WATER HEALTH ADVISORY (2016), https://www.wvdhhr.org/oehs/documents/BPH_pfoa%20pfos_FL.pdf [<https://perma.cc/87PU-C5NX>].

state is one of the most affected by PFAS contamination.¹⁹⁹ As such, it would appear that if West Virginia were to initiate a state effort addressing PFAS, it could be preempted.²⁰⁰ The complicated issue to consider is whether West Virginia would be able to regulate PFAS under an existing law enacted prior to August 31, 2003.²⁰¹ The answer is uncertain. Assuming that West Virginia relies on its Hazardous Waste Management Act,²⁰² the state could address the management of chemicals and possible hazardous products which might be of concern.²⁰³ However, while the statute purports to maintain public health and safety to the environment, it appears to focus more on the management of hazardous wastes or chemicals, with minimal attention devoted to the manufacturing process.²⁰⁴

Given the broad nature of the statute, it is difficult to provide a definitive answer as to whether the state's reliance on the Hazardous Waste Management Act is sufficient to withstand preemption; the question becomes, are the words "manufacturing" and "management" synonymous? If manufacturing and management are indistinguishable, or if the statute is deemed sufficient with regard to manufacturing regulation, West Virginia could likely avoid preemption under its Hazardous Waste Management Act so long as PFAS regulation is listed under the Act, similar to California's listing of certain PFAS under Proposition 65. Although, since West Virginia has not addressed PFAS concerns, it could be reasonably found that the Hazardous Waste Management Act is not meant for the regulation of such chemicals. Consequently, West Virginia might be a preempted state without an escape avenue.

199. See generally Brittany Patterson, *EPA Pledges to Limit Public Exposure to Chemicals Like C8*, W. VA. PUBLIC BROAD. (May 22, 2018), [https://www.wvpublic.org/post/epa-pledges-limit-public-exposure-chemicals-c8#stream/0\[https://perma.cc/E2X8-YK7G\]](https://www.wvpublic.org/post/epa-pledges-limit-public-exposure-chemicals-c8#stream/0[https://perma.cc/E2X8-YK7G]).

200. 15 U.S.C. § 2617(e)(1)(A).

201. *Id.* at § 2617(e)(1)(B).

202. W. VA. CODE § 22-18-2 (2019).

203. *Id.* at § 22-18-2(b)(2).

204. *Id.* at § 22-18-2(b)(1).

VI. CORRECTIVE SOLUTIONS TO IMPENDING PREEMPTION

A. TSCA Exceptions and Waivers

As previously addressed in Part II of this Note, LSCA carved out protections from preemption in the form of exceptions and waivers. Unfortunately, neither appears to provide adequate solutions to the restrictive nature of TSCA. As such, states should be aware of nuances surrounding these provisions.

Under TSCA, states are not preempted: (1) if a regulation is adopted pursuant to another federal law; (2) if a regulation provides for monitoring or reporting not required by the EPA; or (3) if a regulation is adopted pursuant to a state water, air, or waste treatment law.²⁰⁵ However, option three is limited to the extent that it does not impose restrictions on manufacturing, processing, distribution in commerce, or use of a chemical substance, and either (a) addresses the same hazardous issues as the EPA, but does not reach the same conclusion, or (b) would cause the EPA to violate other portions of the statute.²⁰⁶

Option one and two do not require much attention or analysis. TSCA is the main federal regulation concerning the manufacturing and distribution of certain chemicals. As such, it is unlikely other federal manufacturing laws would provide stricter provisions for PFAS that can compete with state actions looking to completely ban PFAS. Similarly, with option two, it is unlikely a state will require monitoring different from the EPA, as the EPA tends to look to states for guidance in order to understand health effects associated with hazardous chemicals.²⁰⁷ As such, whatever standards states establish will likely be on point with the federal government once the EPA initiates additional PFAS protections.

Option three poses a solution to regulating chemicals, but may also prove unavailing. Regulating through other means (i.e., water laws), discussed in the next section, would be a positive solution to

205. 15 U.S.C. § 2617(d)(1)(A)(i)–(iii).

206. *Id.* at § 2617(d)(1)(A)(iii)(II)(aa)–(bb).

207. *See, e.g.*, News Release, EPA, EPA Seeks Public Input on Draft Toxicity Assessments for PFAS Chemicals (Nov. 14, 2018), <https://www.epa.gov/newsreleases/epa-seeks-public-input-draft-toxicity-assessments-pfas-chemicals> [<https://perma.cc/V35Z-DDZ9>].

preemption. However, under the TSCA provision, it would mean adopting water, air, or waste disposal treatment laws that would effectively reduce the manufacturing of PFAS.²⁰⁸ Regulating through other state laws is challenging as the TSCA provision has limitations, particularly that the state air, water, or waste disposal law cannot restrict manufacturing.²⁰⁹

If states are facing preemption under TSCA, the overarching issue must be the manufacturing with or manufacturing of a certain chemical, as the purpose of TSCA's enactment was to "prevent unreasonable risks of injury to health or the environment associated with the manufacture, processing, distribution in commerce, use, or disposal of chemicals substances."²¹⁰ Consequently, it would not matter that states rely on other laws to reduce the manufacturing of PFAS, because those laws would violate 15 U.S.C. § 2617(d)(1)(A)(iii)(I). Even if an argument could be made that the manufacturing itself would not be affected, regulations under other laws would still likely violate 15 U.S.C. § 2617(d)(1)(A)(iii)(I) as (1) the processing of a product and (2) the use of the chemical substance would be restricted.²¹¹ Additionally, if states were to rely on other authority (water, air, or waste disposal), it could not restrict distribution in commerce. Distribution in commerce means "trade, traffic, transportation, or other commerce (1) between a place in a State and any place outside of such State, or (2) which affects trade, traffic, transportation, or commerce between a place in a State and any place outside of such State."²¹² In essence, if states rely on other laws, which would likely be more restrictive on PFAS use, distribution in commerce would clearly be affected as those states would probably not allow any products manufactured with PFAS to be distributed within state borders. Therefore, the exceptions

208. 15 U.S.C. § 2617(d)(1)(A)(iii) (2018).

209. *Id.* at § 2617(d)(1)(A)(iii)(I).

210. Markell, *supra* note 54, at 338 (quoting S. REP. No. 94-698, at 1 (1976), reprinted in 1976 U.S.C.C.A.N. 4491, 4491).

211. See generally *Toxic Chemicals: PFAS, SAFER STS.*, <http://www.saferstates.com/toxic-chemicals/pfas/> [<https://perma.cc/LKL8-QMB3>].

212. 40 C.F.R. § 720.3 (2016).

provision of TSCA is not an effective solution to avoiding preemptive measures.²¹³

In addition to exceptions, states have the ability to obtain a waiver. Waivers, too, are ineffective solutions for states because both discretionary and non-discretionary waivers cannot impose an undue burden on interstate commerce.²¹⁴ In *United States v. Lopez*, the Supreme Court found that interstate commerce is affected by commercial activity.²¹⁵ Unlike *Lopez*, where the mere possession of a handgun was found to not affect interstate commerce,²¹⁶ it would be difficult to argue that providing states with waivers, which limit the manufacturing of PFAS, would not have some sort of effect on interstate commerce. PFAS are used to manufacture various products, such as stain repellants²¹⁷ and carpets.²¹⁸ These are items meant to be distributed in commerce. If states want to reduce or eliminate the use of PFAS through a waiver from the federal government, manufacturing would be greatly limited and could result in a product not making its way to the market. As a result, a waiver under TSCA, which in the context of PFAS would allow states to reduce or limit use of the chemicals during the manufacturing process, could impose an undue burden on interstate commerce.

B. Regulation through Water Provisions

Because the exceptions and waivers under TSCA do not appear as workable escapes from preemption, states should focus less on regulating the manufacturing of PFAS and emphasize corrective solutions to limit the levels of these chemicals in water supplies. As addressed briefly in the preceding section, TSCA

213. As addressed in Part IV of this Note, the EPA has not officially begun the risk management process, thus the second prong of 15 U.S.C. § 2617(d)(1)(A)(iii) is not currently at issue, and therefore, will not be addressed in this note. *See id.* at § 2617(d)(1)(A)(iii)(II)(aa).

214. *Id.* at § 2617(f)(1)–(2).

215. *See United States v. Lopez*, 514 U.S. 549, 551 (1995).

216. *Id.* at 567.

217. *See LYONS*, *supra* note 18, at 109 (Scotchgard is an example of a well-known stain repellant that once contained PFOS, a type of PFAS).

218. *See* CAL. DEP'T OF TOXIC SUBSTANCES CONTROL, DISCUSSION DRAFT: PRODUCT – CHEMICAL PROFILE FOR PERFLUOROALKYL AND POLYFLUOROALKYL SUBSTANCES (PFASs) IN CARPETS AND RUGS 4–5 (2018).

exceptions pose an interesting solution to regulating chemicals: regulation through water laws. The problem again with regulating chemicals through other means is that such regulation cannot limit manufacturing, processing, distribution in commerce, use or disposal of chemicals substances.²¹⁹ A method of bypassing those restrictions would be to not regulate manufacturing, but rather use state water laws to regulate water systems and operators. Water systems and operators have no impact on the manufacturing of PFAS, but rather, can assist in the purification process of water supplies contaminated with PFAS.

Additionally, the EPA has established very limited water guidelines, which means states have flexibility when it comes to regulating water systems and operators, so long as the regulations do not contradict section 15 U.S.C. § 2617(d)(1)(A). Currently, the EPA has only provided a health advisory maximum contamination level of seventy parts per trillion.²²⁰ However, EPA health advisories are both non-enforceable and solely provide technical guidance to states and public health officials with regard to potential health effects.²²¹ Some states have adopted the EPA's advisory²²² while others, such as New Jersey, have taken more aggressive measures to ensure the safety of its citizens and the environment.²²³

States like New York are at the forefront of combatting PFAS, and such actions may provide guidance to other states. Particularly, in 2016, Governor Cuomo created the Water Quality

219. 15 U.S.C. § 2617(d)(1)(A)(iii)(I).

220. *Drinking Water Health Advisories for PFOA and PFOS*, EPA (last updated Feb. 13, 2019), <https://www.epa.gov/ground-water-and-drinking-water/drinking-water-health-advisories-pfoa-and-pfos> [<https://perma.cc/GG5S-2MLY>].

221. *Drinking Water Contaminate Human Health Effects Information*, EPA (Mar. 21, 2019), <https://www.epa.gov/dwstandardsregulations/drinking-water-contaminant-human-health-effects-information> [<https://perma.cc/7PQR-QZDT>].

222. See Cole Alder, *Analysis of state-by-state differences in PFAS regulation*, NORTHEASTERN UNIVERSITY: SOC. SCI. ENVTL. HEALTH RES. INST. (Oct. 2, 2018), <https://pfasproject.com/2018/10/02/analysis-of-state-by-state-differences-in-pfas-regulation/> [<https://perma.cc/G5V9-FGFX>] (noting states that have adopted the EPA's suggested standard).

223. *Drinking Water Facts: Per- and Polyfluoroalkyl Substances (PFAS) in Drinking Water*, N.J. DEP'T OF HEALTH 2 (2017), https://www.nj.gov/health/ceohs/documents/pfas_drinking%20water.pdf [<https://perma.cc/HRX9-LZ69>] (New Jersey has enforced standards that do not allow PFAS to exceed 14 ppt for drinking water).

Rapid Response Team to investigate water contamination across New York and to take remedial actions to address drinking water issues across the state.²²⁴ In 2017, Governor Cuomo enacted the Clean Water Infrastructure Act, which put \$2.5 billion towards enhancing New York's efforts.²²⁵ The Act will provide support to help communities upgrade drinking water and wastewater infrastructures with modern filtration systems and connect contaminated private water wells to regulated public systems.²²⁶ Such measures can hopefully sieve out PFAS or at least minimize the amount of PFAS getting through the filtration systems. While New York's actions appear costly, it is a possible option to avoid preemption under TSCA. These regulations do not appear to imply any sort of limitation on manufacturing and would therefore likely be immune from a preemption challenge.

VII. CONCLUSION

The ubiquitous nature of PFAS has resulted in country-wide contamination. States are currently taking steps to minimize human exposure and reduce the quantity of these chemicals found in the environment. However, even though the federal government continues to drag its feet with enforceable PFAS standards, preemption has likely been triggered with the implementation of SNURs ranging from 2002 through 2013. As such, states should act now with regard to unregulated PFAS or hope there is some state provision to rely on, since the exceptions and waivers sections of TSCA are not ideal solutions. This Note does not recommend an amendment to TSCA, but rather, provides awareness of the preemption provisions and the resulting effect on PFAS manufacturing regulation.

While reducing the manufacturing use of these harmful chemicals provides a fast solution to the contamination problem, states must be realistic about federal government assistance given

224. *Per- and Polyfluoroalkyl Substances (PFAS)*, N.Y. DEP'T OF ENVTL. CONSERVATION, <https://www.dec.ny.gov/chemical/108831.html> [https://perma.cc/5L9P-8Z4Z].

225. *Id.*

226. *Id.*; see also *New York State's Water Quality Rapid Response Team Continues Actions to Address Water Contamination Statewide*, N.Y. DEP'T OF ENVTL. CONSERVATION (Jan 31, 2017), <https://www.dec.ny.gov/press/109114.html> [https://perma.cc/SR5N-WK4S].

its lack of initiative. Regulating water systems and operators is another effective solution to decreasing the level of exposure to humans and the environment. Through an adoption of preventative procedures, states can take the “other fork of the road—the one ‘less traveled’”²²⁷ to effectively begin remediation of an inadequately addressed problem, and ultimately combat the continued spread of these harmful, omnipresent chemicals.

227. CARSON, *supra* note 1, at 277.